

I CLAIM:

1           1.       A method for treating gastritis and peptic ulcer disease comprising:  
 2                   (a)       administration of an oral liquid dosage form comprising:  
 3                           (i)       a first material selected from the group consisting of a bile  
 4       acid, an aqueous soluble derivative of a bile acid, a bile acid salt, a bile acid conjugated  
 5       with an amine by an amide linkage, and combinations thereof ;  
 6                           (ii)       a second material selected from the group consisting of an  
 7       aqueous soluble starch conversion product and an aqueous soluble non-starch  
 8       polysaccharide; and  
 9                           (iii)       water,  
 10       wherein the first and second materials both remain in solution for all pH values of the  
 11       solution within a selected range of pH values.

1           2.       The method of Claim 1 wherein the dosage form is selected from  
 2       the group consisting of a syrup, a thick syrup, and a paste.

1           3.       The method of Claim 1 wherein the oral liquid dosage form  
 2       additionally comprises a bismuth compound in a pharmaceutically effective amount.

1           4.       The method of Claim 3 wherein the bismuth compound comprises  
 2       an aqueous soluble reaction product between a bismuth ion and a chelator.



1                   5.       The method of Claim 4 wherein the chelator is selected from the  
2       group consisting of citric acid, tartaric acid, malic acid, lactic acid and eidetic acid and  
3       alkalies.

1                   6.       The method of Claim 5 wherein the bismuth compound is selected  
2       from the group consisting of an ammonium salt of bismuth sulphate, an ammonium salt  
3       of bismuth citrate, and bismuth sodium tartrate.

1                   7.       The method of Claim 1 wherein the first material is selected from  
2       the group consisting of ursodeoxycholic acid, chenodeoxycholic acid, cholic acid,  
3       hyodeoxycholic acid, deoxycholic acid, 7-oxolithocholic acid, lithocholic acid,  
4       iododeoxycholic acid, iocholic acid, tauroursodeoxycholic acid, taurochenodeoxycholic  
5       acid, taurodeoxycholic acid, glyoursodeoxycholic acid, taurocholic acid, glycocholic  
6       acid, their derivatives at a hydroxyl or carboxylic acid group on the steroid nucleus, their  
7       salts, or their conjugates with amines.

1                   8.       The method of Claim 1 wherein the second material is selected  
2       from the group consisting of maltodextrin, dextrin, corn syrup corn syrup solid, soluble  
3       starch, and dextrans.

1                   9.       The method of Claim 1 wherein the the oral liquid dosage form  
2       comprises one or more additional bile acids, aqueous soluble derivatives of bile acid, bile  
3       acid salts, and amine-conjugated bile acids conjugated by an amide linkage.



1                   10.     The method of Claim 1 wherein the the oral liquid dosage form  
2     additionally comprises a least one emulsifying agent.

1                   11.     The method of Claim 10 wherein the emulsifying agent is selected  
2     from the group consisting of guar gum, pectin, acacia, carrageenan, carboxymethyl  
3     cellulose sodium, hydroxymethyl cellulose, hydroxypropyl cellulose, methyl cellulose,  
4     polyvinyl alcohol, povidone, tragacanth gum, xanthan gum, and sorbitan ester.

1                   12.     The method of Claim 1 wherein the oral liquid dosage form  
2     additionally comprises at least one pharmaceutical in a pharmaceutically effective  
3     amount.

1                   13.     The method of Claim 12 wherein the pharmaceutical is selected  
2     from the group consisting of antibiotics, H<sub>2</sub>-receptor antagonists, and antiprotozoal drugs.

1                   14.     The method of Claim 12 wherein the pharmaceutical is selected  
2     from the group consisting of ampicillin, amoxicillin, cefaclor, cefadroxyl, azithromycin,  
3     clarithromycin, demeclocycline·HCl, doxycycline, minocycline·HCl, tetracycline,  
4     oxytetracycline, cimetidine, famotidine, nizatidine, ranitidine, sucralfate, metronidazole,  
5     atovaquone, and pentamidine·isethionate.

1                   15.             A method for treating a liver disease comprising:

2                   (a)     administration of an oral liquid dosage form comprising:



3 (i) a first material selected from the group consisting of a bile  
4 acid, an aqueous soluble derivative of a bile acid, a bile acid salt, a bile acid conjugated  
5 with an amine by an amide linkage, and combinations thereof ;

6 (ii) a second material selected from the group consisting of an  
7 aqueous soluble starch conversion product and an aqueous soluble non-starch  
8 polysaccharide; and

9 (iii) water,

10 wherein the first and second materials both remain in solution for all pH values of the  
11 solution within a selected range of pH values.

1 16. The method of Claim 15 wherein the dosage form is selected from  
2 the group consisting of a syrup, a thick syrup, and a paste.

1 17. The method of Claim 15 wherein the first material is selected from  
2 the group consisting of ursodeoxycholic acid, chenodeoxycholic acid, cholic acid,  
3 hyodeoxycholic acid, deoxycholic acid, 7-oxolithocholic acid, lithocholic acid,  
4 iododeoxycholic acid, iocholic acid, tauroursodeoxycholic acid, taurochenodeoxycholic  
5 acid, taurodeoxycholic acid, glyoursodeoxycholic acid, taurocholic acid, glycocholic  
6 acid, their derivatives at a hydroxyl or carboxylic acid group on the steroid nucleus, their  
7 salts, or their conjugates with amines.

1 18. The method of Claim 15 wherein the second material is selected  
2 from the group consisting of maltodextrin, dextrin, corn syrup corn syrup solid, soluble  
3 starch, and dextrans.



1                   19.     The method of Claim 15 wherein the oral liquid dosage form  
2     additionally comprises at least one pharmaceutical in a pharmaceutically effective  
3     amount.

1                   20.     The method of Claim 19 wherein the pharmaceutical is selected  
2     from the group consisting of acyclovir, amantadine·HCl, rimantidine·HCl, cidofovir,  
3     delavirdine mesylate, didanosine, famciclovir, forscarnet, sodium gancyclovir,  
4     idoxuridine, lamivudine, nevirapine, penciclovir, ribavirin, stavudine, trifluridine,  
5     valacyclovir·HCl, zalcitabine, zidovudine, indinavir·H<sub>2</sub>SO<sub>4</sub>, ritonavir,  
6     nelfinavir·CH<sub>3</sub>SO<sub>3</sub>H, saquinavir·CH<sub>3</sub>SO<sub>3</sub>H, interferons, branched chain amino acid,  
7     betamethasone, budesonide, dexamethasone, fludrocortisone·CH<sub>3</sub>COOH, flunisolide,  
8     prednisone, prednisolone, methyl prednisolone, hydrocortisone, trameinolone,  
9     chlorambucil, azathioprine, azacitidine, fluorouracil, mercaptopurine, methotrexate,  
10    trientine·2HCl, and catechin.

1                   21.     The method of Claim 15 wherein the oral liquid dosage form  
2     additionally comprises a a branched chain amino acid.

1                   22.     The method of Claim 21 wherein the branched chain amino acid is  
2     selected from the group consisting of leucine, isoleucine, and valine.

1                   23.     A method for treating gall stones comprising:

2                   (a)     administration of an oral liquid dosage form comprising:



3 (i) a first material selected from the group consisting of a bile  
4 acid, an aqueous soluble derivative of a bile acid, a bile acid salt, a bile acid conjugated  
5 with an amine by an amide linkage, and combinations thereof ;

6 (b) a second material selected from the group consisting of an  
7 aqueous soluble starch conversion product and an aqueous soluble non-starch  
8 polysaccharide; and

9 (c) water,

10 wherein the first and second materials both remain in solution for all pH values of the  
11 solution within a selected range of pH values.

1 24. The method of Claim 23 wherein the dosage form is selected from  
2 the group consisting of a syrup, a thick syrup, and a paste.

1 25. The method of Claim 23 wherein the first material is selected from  
2 the group consisting of ursodeoxycholic acid, chenodeoxycholic acid, cholic acid,  
3 hyodeoxycholic acid, deoxycholic acid, 7-oxolithocholic acid, lithocholic acid,  
4 iododeoxycholic acid, iocholic acid, tauroursodeoxycholic acid, taurochenodeoxycholic  
5 acid, taurodeoxycholic acid, glyoursodeoxycholic acid, taurocholic acid, glycocholic  
6 acid, their derivatives at a hydroxyl or carboxylic acid group on the steroid nucleus, their  
7 salts, or their conjugates with amines.

1 26. The method of Claim 23 wherein the second material is selected  
2 from the group consisting of maltodextrin, dextrin, corn syrup corn syrup solid, soluble  
3 starch, and dextrans.



1                   27.     The method of Claim 23 wherein the the oral liquid dosage form  
2     comprises one or more additional bile acids, aqueous soluble derivatives of bile acid, bile  
3     acid salts, and amine-conjugated bile acids conjugated by an amide linkage.

1                   28.     A method for treating or preventing colorectal adenoma  
2     comprising:

3                   (a)     administration of an oral liquid dosage form comprising:

4                             (i)     a first material selected from the group consisting of a bile  
5     acid, an aqueous soluble derivative of a bile acid, a bile acid salt, a bile acid conjugated  
6     with an amine by an amide linkage, and combinations thereof ;

7                             (ii)    a second material selected from the group consisting of an  
8     aqueous soluble starch conversion product and an aqueous soluble non-starch  
9     polysaccharide; and

10                            (iii)   water,

11     wherein the first and second materials both remain in solution for all pH values of the  
12     solution within a selected range of pH values.

1                   29.     The method of Claim 28 wherein the dosage form is selected from  
2     the group consisting of a syrup, a thick syrup, and a paste.

1                   30.     The method of Claim 28 wherein the first material is selected from  
2     the group consisting of ursodeoxycholic acid, chenodeoxycholic acid, cholic acid,  
3     hyodeoxycholic acid, deoxycholic acid, 7-oxolithocholic acid, lithocholic acid,



4 iododeoxycholic acid, iocholic acid, tauroursodeoxycholic acid, taurochenodeoxycholic  
 5 acid, taurodeoxycholic acid, glyoursodeoxycholic acid, taurocholic acid, glycocholic  
 6 acid, their derivatives at a hydroxyl or carboxylic acid group on the steroid nucleus, their  
 7 salts, or their conjugates with amines.

1 31. The method of Claim 28 wherein the second material is selected  
 2 from the group consisting of maltodextrin, dextrin, corn syrup corn syrup solid, soluble  
 3 starch, and dextrans.

1 32. The method of Claim 28 wherein the the oral liquid dosage form  
 2 comprises one or more additional bile acids, aqueous soluble derivatives of bile acid, bile  
 3 acid salts, and amine-conjugated bile acids conjugated by an amide linkage.

1 33. The method of Claim 28 wherein the the oral liquid dosage form  
 2 additionally comprises a least one emulsifying agent.

1 34. The method of Claim 33 wherein the emulsifying agent is selected  
 2 from the group consisting of guar gum, pectin, acacia, carrageenan, carboxymethyl  
 3 cellulose sodium, hydroxymethyl cellulose, hydroxypropyl cellulose, methyl cellulose,  
 4 polyvinyl alcohol, povidone, tragacanth gum, xanthan gum, and sorbitan ester.

1 35. The method of Claim 28 wherein the oral liquid dosage form  
 2 additionally comprises at least one pharmaceutical in a pharmaceutically effective  
 3 amount.



36. The method of Claim 35 wherein the pharmaceutical is selected from the group consisting of colchicine, sulfinpyrazone, allopurinol, piroxicam, tolmetin-sodium, idomethacin, ibuprofen, diflunisal, mefenamic acid, and mesalamine.

37. A method for treating hyperlipidemia comprising:

(a) administration of an oral liquid dosage form comprising:

(i) a first material selected from the group consisting of a bile acid, an aqueous soluble derivative of a bile acid, a bile acid salt, a bile acid conjugated with an amine by an amide linkage, and combinations thereof ;

(ii) a second material selected from the group consisting of an aqueous soluble starch conversion product and an aqueous soluble non-starch polysaccharide; and

(iii) water,

wherein the first and second materials both remain in solution for all pH values of the solution within a selected range of pH values.

38. The method of Claim 37 wherein the dosage form is selected from the group consisting of a syrup, a thick syrup, and a paste.

39. The method of Claim 37 wherein the first material is selected from the group consisting of ursodeoxycholic acid, chenodeoxycholic acid, cholic acid, hyodeoxycholic acid, deoxycholic acid, 7-oxolithocholic acid, lithocholic acid, iododeoxycholic acid, iocholic acid, tauroursodeoxycholic acid, taurochenodeoxycholic



5 acid, taurodeoxycholic acid, glyoursodeoxycholic acid, taurocholic acid, glycocholic  
6 acid, their derivatives at a hydroxyl or carboxylic acid group on the steroid nucleus, their  
7 salts, or their conjugates with amines.

1 40. The method of Claim 37 wherein the second material is selected  
2 from the group consisting of maltodextrin, dextrin, corn syrup corn syrup solid, soluble  
3 starch, and dextrans.

1 41. The method of Claim 37 wherein the the oral liquid dosage form  
2 comprises one or more additional bile acids, aqueous soluble derivatives of bile acid, bile  
3 acid salts, and amine-conjugated bile acids conjugated by an amide linkage.

1 42. The method of Claim 37 wherein the the oral liquid dosage form  
2 additionally comprises a least one emulsifying agent.

1 43. The method of Claim 38 wherein the emulsifying agent is selected  
2 from the group consisting of guar gum, pectin, acacia, carrageenan, carboxymethyl  
3 cellulose sodium, hydroxymethyl cellulose, hydroxypropyl cellulose, methyl cellulose,  
4 polyvinyl alcohol, povidone, tragacanth gum, xanthan gum, and sorbitan ester.

1 44. The method of Claim 37 wherein the oral liquid dosage form  
2 additionally comprises at least one pharmaceutical in a pharmaceutically effective  
3 amount.



1                   45.     The method of Claim 44 wherein the pharmaceutical is selected  
2     from the group consisting of atorvastatin-calcium, cerivastatin sodium, fluvastatin  
3     sodium, lovastatin, pravastatin sodium, and simvastatin.

1                   46.     The method of Claim 37 wherein the oral liquid dosage form  
2     additionally comprises a dietary fiber.

1                   47.     The method of Claim 46 wherein the dietary fiber is selected from  
2     the group consisting of psyllium, oat gum, soybean fiber, oat bran, corn bran, cellulose  
3     and wheat bran.

1                   48.     A clear aqueous solution comprising:

2                   (a)     a first material selected from the group consisting of a bile  
3     acid, an aqueous soluble derivative of a bile acid, a bile acid salt, and a bile acid  
4     conjugated with an amine by an amide linkage;

5                   (b)     an aqueous soluble non-starch polysaccharide; and

6                   (c)     water,

7     wherein the first material and the polysaccharide both remain in solution for all pH values  
8     of the solution within a selected range of pH values.

1                   49.     The aqueous solution of Claim 48 wherein the first material is  
2     present in a pharmaceutically effective amount.



1                   50.     The aqueous solution of Claim 48 wherein the solution  
2     additionally comprises a pharmaceutically effective amount of a pharmaceutical  
3     compound and the pharmaceutical compound remains in solution for all pH values within  
4     the selected range.

1                   51.     The aqueous solution of Claim 50 wherein the pharmaceutical  
2     compound is selected from the group consisting of insulin, heparin, calcitonin, ampicillin,  
3     amantadine·HCl, rimantadine·HCl, proinsulin, insoluble insulins, and amino acids.

1                   52.     The aqueous solution of Claim 50 wherein the pharmaceutical  
2     compound is selected from the group consisting of octreotide, sildenafil citrate, calcitriol,  
3     dihydrotachysterol, ampomorphine, yohimbin, trazodone, acyclovir, cidofovir,  
4     delavirdine·mesylate, didanosine, famciclovir, forscarnet sodium, fluorouracil,  
5     ganciclovir sodium, idoxuridine, interferon- $\alpha$ , lamivudine, nevirapine, penciclovir,  
6     ribavirin, stavudine, trifluridine, valacyclovir·HCl, zalcitabine, zidovudine,  
7     indinavir·H<sub>2</sub>SO<sub>4</sub>, ritonavir, nelfinavir·CH<sub>3</sub>SO<sub>3</sub>H, saquinavir·CH<sub>3</sub>SO<sub>3</sub>H, d-penicillamine,  
8     chloroquine, hydroxychloroquine, aurothioglucose, gold sodium thiomalate, auranofin  
9     levamisole, DTC, isoprinosine, methyl inosine monophosphate, muramyl dipeptide,  
10    diazoxide, hydralazine·HCl, minoxidil, dipyridamole, isoxsuprine·HCl, niacin,  
11    nylidrin·HCl, phentolamine, doxazosin·CH<sub>3</sub>SO<sub>3</sub>H, prazosin·HCl, terazocin·HCl,  
12    clonidine·HCl, nifedipine, molsidomine, amiodarone, acetylsalicylic acid, verapamil,  
13    diltiazem, nisoldipine, isradipine, bepridil, isosorbide·dinitrate,  
14    pentaerythrytol·tetranitrate, nitroglycerin, cimetidine, famotidine, nizatidine, ranitidine,  
15    lansoprazole, omeprazole, misoprostol, sucralfate, metoclopramide·HCl, erythromycin,



- 16 alprostadil, albuterol, pirbuterol, terbutaline·H<sub>2</sub>SO<sub>4</sub>, salmetrol, aminophylline, dyphylline,
- 17 ephedrine, ethylnorepinephrine, isoetharine, isoproterenol, metaproterenol, n·docromil,
- 18 oxy triphylline, theophylline, bitolterol, fenoterol, budesonide, flunisolide,
- 19 beclomethasone·dipropionate, fluticasone·propionate, codeine, codeine sulfate, codeine
- 20 phosphate, dextromethorphan·HBr, triamcinolone·acetonide, montelukast sodium,
- 21 zafirlukast, zileuton, cromolyn sodium, ipratropium bromide, nedocromil sodium
- 22 benzonate, diphenhydramine·HCl, hydrocodone·bitartrate, methadone·HCl,
- 23 morphine sulfate, acetylcysteine, guaifenesin, ammonium carbonate, ammonium chloride,
- 24 antimony potassium tartarate, glycerin, terpin·hydrate, colfosceril palmitate,
- 25 atorvastatin·calcium, cervastatin·sodium, fluvastatin·sodium, lovastatin,
- 26 pravastatin·sodium, simvastatin, picrorrhazia kurrva, andrographis paniculata, moringa
- 27 oleifera, albizzia lebeck, adhata vasica, curcuma longa, momordica charantia, gymnema
- 28 sylvestre, terminalia arjuna, azadirachta indica, tinosporia cordifolia, metronidazole,
- 29 amphotericin B, clotrimazole, fluconazole, haloprogin, ketoconazole, griseofulvin,
- 30 itraconazole, terbinafin·HCl, econazole·HNO<sub>3</sub>, miconazole, nystatin,
- 31 oxiconazole·HNO<sub>3</sub>, sulconazole·HNO<sub>3</sub>, cetirizine·2HCl, dexamethasone, hydrocortisone,
- 32 prednisolone, cortisone, catechin and its derivatives, glycyrrhizin, glycyrrhizic acid,
- 33 betamethasone, ludrocortisone·acetate, flunisolide, fluticasone·propionate, methyl
- 34 prednisolone, somatostatin, lispro, glucagon, acarbose, chlorpropamide, glipizide,
- 35 glyburide, metformin·HCl, repaglinide, tolbutamide, colchicine, sulfinpyrazone,
- 36 allopurinol, piroxicam, tolmetin sodium, indomethacin, ibuprofen, diflunisal, mefenamic
- 37 acid, naproxen, and trientine.



1                   53.     The aqueous solution of Claim 50 wherein the first material is  
2     ursodeoxycholic acid and the pharmaceutical compound is selected from the group  
3     consisting of metformin HCl , ranitidine HCl, cimetidine, lamivudine, cetirizine 2HCl,  
4     amantadine, rimantadine, sildenafil, apomorphine, yohimbine, trazodone, ribavirin,  
5     dexamethasone, hydrocortisone, prednisolone, triamcinolone, cortisone, niacin, catechin  
6     and its derivatives, taurine, vitamins, naturally occurring amino acids, and glycyrrhiza  
7     extract.

1                   54.     The aqueous solution of Claim 48 wherein the selected pH range is  
2     between approximately 1 and approximately 10 inclusive.

1                   55.     The aqueous solution of Claim 48 wherein the selected pH range is  
2     the range spanned by the prevailing pH values found in the mouth, stomach, and  
3     intestines of a mammal.

1                   56.     The aqueous solution of Claim 48 wherein the selected pH range is  
2     the range spanned by the prevailing pH values found in the mouth, stomach, and  
3     intestines of a human being.

1                   57.     The aqueous solution of Claim 48 wherein the selected pH range is  
2     a range of pH values obtainable in an aqueous system encountered by the solution during  
3     preparation, administration and until absorption in the body to which the solution is  
4     administered.



1                   58.     The aqueous solution of Claim 48 wherein the selected pH range  
2 spans all obtainable pH values in an aqueous system.

1                   59.     The aqueous solution of Claim 48 wherein the first material is  
2 selected from the group consisting of ursodeoxycholic acid, chenodeoxycholic acid,  
3 cholic acid, hyodeoxycholic acid, deoxycholic acid, 7-oxolithocholic acid, lithocholic  
4 acid, iododeoxycholic acid, iocholic acid, tauroursodeoxycholic acid,  
5 taurochenodeoxycholic acid, taurodeoxycholic acid, glyoursodeoxycholic acid,  
6 taurocholic acid, glyocholic acid, their derivatives at a hydroxyl or carboxylic acid  
7 group on the steroid nucleus, their salts, or their conjugates with amines.

1                   60.     The aqueous solution of Claim 48 wherein the bile acid salt is a  
2 product of the reaction of a bile acid and an amine.

1                   61.     The aqueous solution of Claim 60 wherein the bile acid is selected  
2 from the group consisting of ursodeoxycholic acid, chenodeoxycholic acid, cholic acid,  
3 hyodeoxycholic acid, deoxycholic acid, 7-oxolithocholic acid, iododeoxycholic acid,  
4 iocholic acid, tauroursodeoxycholic acid, taurochenodeoxycholic acid, taurodeoxycholic  
5 acid, glyoursodeoxycholic acid, taurocholic acid, glyocholic acid, and their derivatives  
6 at a hydroxyl or carboxylic acid group on the steroid nucleus.

1                   62.     The aqueous solution of Claim 60 wherein the amine is selected  
2 from the group consisting of an aliphatic free amine, trientine, diethylene triamine,  
3 tetraethylene pentamine, a basic amino acid, arginine, lysine, ornithine, ammonia, an



4 amino sugar, D-glucamine, N-alkylglucamines, a quaternary ammonium derivative,  
5 choline, an heterocyclic amine, piperazine, N-alkylpiperazine, piperidine,  
6 N-alkylpiperidine, morpholine, N-alkylmorpholine, pyrrolidine, triethanolamine, and  
7 trimethanolamine.

1 63. The aqueous solution of Claim 48 wherein the bile acid salt is a  
2 soluble metal salt of a bile acid, an inclusion compound between the bile acid and  
3 cyclodextrin and its derivatives, or an aqueous soluble O-sulfonated bile acid.

1 64. The aqueous solution of Claim 50 wherein the first material is an  
2 adjuvant.

1 65. The aqueous solution of Claim 50 wherein the first material is a  
2 carrier of the pharmaceutical compound.

1 66. The aqueous solution of Claim 48 wherein the solution further  
2 comprises a micelle forming material.

1 67. The aqueous solution of Claim 48 wherein the solution is  
2 comprised in a preparation for oral consumption.

1 68. The aqueous solution of Claim 48 wherein the solution is  
2 comprised in an enema.



1 69. The aqueous solution of Claim 48 wherein the solution is  
2 comprised in a mouthwash.

1 70. The aqueous solution of Claim 48 wherein the solution is  
2 comprised in a gargle.

1 71. The aqueous solution of Claim 48 wherein the solution is  
2 comprised in a preparation for nasal administration.

1 72. The aqueous solution of Claim 48 wherein the solution is  
2 comprised in a preparation for otic administration.

1 73. The aqueous solution of Claim 48 wherein the solution is  
2 comprised in an injection.

1 74. The aqueous solution of Claim 48 wherein the solution is  
2 comprised in a douche.

1 75. The aqueous solution of Claim 48 wherein the solution is  
2 comprised in a topical skin preparation.

1 76. The aqueous solution of Claim 48 wherein the solution is  
2 comprised in a cosmetic preparation.



1 77. The aqueous solution of Claim 48 wherein the solution is  
2 comprised in a dosage form selected from the group consisting of a syrup, a thick syrup,  
3 and a paste.

1 78. A method of preparing an aqueous solution wherein the solution  
2 forms no detectable precipitate at any pH value of the solution within a selected range of  
3 pH values comprising the steps of:

4 (a) dissolving a bile acid, bile acid salt, or bile acid-amine  
5 conjugate in water to form a clear solution;

6 (b) adding at least one aqueous soluble non-starch  
7 polysaccharide to the clear solution and allowing it to dissolve to form a clear solution;  
8 and

9 (c) optionally adding a pharmaceutically effective amount of a  
10 pharmaceutical compound.

1 79. The method of Claim 78 wherein the selected range is all pH  
2 values obtainable in an aqueous system.

3 80. The method of Claim 78 wherein the selected range is between  
4 approximately pH 1 and approximately pH 10.

1 81. A clear aqueous solution comprising:



2 (a) a first material selected from the group consisting of a bile  
3 acid, an aqueous soluble derivative of a bile acid, a bile acid salt, and a bile acid  
4 conjugated with an amine by an amide linkage;

5 (b) a polysaccharide having at least one reducing end and one  
6 at least one non-reducing end; and

7 (c) water,

8 wherein the first material and the polysaccharide both remain in solution for all pH values  
9 of the solution within a selected range of pH values.

10 82. A clear aqueous solution comprising:

11 (a) a first material selected from the group consisting of a bile  
12 acid, an aqueous soluble derivative of a bile acid, a bile acid salt, and a bile acid  
13 conjugated with an amine by an amide linkage;

14 (b) a second material selected from the group consisting of an  
15 aqueous soluble starch conversion product and an aqueous soluble non-starch  
16 polysaccharide; and

17 (c) a third material comprising an aqueous soluble bismuth  
18 compound; and

19 (d) water,

20 wherein the first, second, and third materials all remain in solution for all pH values of  
21 the solution within a selected range of pH values.

1 83. The aqueous solution of Claim 82 wherein the bile acid is selected  
2 from the group consisting of ursodeoxycholic acid, chenodeoxycholic acid, cholic acid,



3 hyodeoxycholic acid, deoxycholic acid, 7-oxolithocholic acid, iododeoxycholic acid,  
4 iocholic acid, tauroursodeoxycholic acid, taurochenodeoxycholic acid, taurodeoxycholic  
5 acid, glyoursodeoxycholic acid, taurocholic acid, glycocholic acid, and their derivatives  
6 at a hydroxyl or carboxylic acid group on the steroid nucleus.

1 84. The aqueous solution of Claim 82 wherein the pH range is selected  
2 from about 2 to about 9.

1 85. The aqueous solution of Claim 82 wherein the bismuth compound  
2 comprises an aqueous soluble reaction product between a bismuth ion and a chelator.

1 86. The aqueous solution of Claim 85 wherein the chelator is selected  
2 from the group consisting of citric acid, tartaric acid, malic acid, lactic acid and eidetic  
3 acid and alkalies.

1 87. The aqueous solution of Claim 85 wherein the bismuth compound  
2 is selected from the group consisting of an ammonium salt of bismuth sulphate, an  
3 ammonium salt of bismuth citrate, and bismuth sodium tartrate.

Add  
a<sub>2</sub>

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